

<p>93-351577/44                  HUELS TROISDORF AG                  92.10.31 92DE-4236855 (+ 92DE-4212229) (93.10.28) C04B 28/00,                  28/26 (C04B 14:10, 14:18, 18:08, 18:14, 28/00, 22:00, 18:10)                  (C04B 14:18, 28/26, C06B 14:10)                  Low density inorganic moulding prodn. - by wetting microporous                  filler material with liq., water contg. wetting agent, mixing with                  stone forming component, pouring into mould and thermally                  hardening (Ger)                  C93-156006 N(AT AU BB BG BR CA CH CZ DE DK ES FI GB HU JP KP KR                  KZ LK LU MG MN MW NL NO NZ PL PT RO RU SD SE SK UA US VN) R(AT                  BE CH DE DK ES FR GB GR IE IT LU MC NL OA PT SE                  Addnl. Data: HAAACK T, RANDEL P                  93.04.13 93WO-EP00900                  93-328871/42</p>	<p>HUTR 92.04.11                  *WO 9321126-A1                  L(2-A4, 2-G1)                  USE/ADVANTAGE                  Making chimneys and chimney parts using steel tubular                  moulds.                  The moulding has a high temp. strength, good alternat-                  ing temp. strength, low thermal conductivity and has low                  shrinkage at high temperature.</p>
<p>Method of producing a light, mainly inorganic moulding with                  a density below 400 kg/m<sup>3</sup> consists of wetting a microporous                  filler material of powder density below 150 kg/m<sup>3</sup> with a                  liquid, water-containing wetting agent; mixing with a stone-                  forming component and optionally other solid components                  together with a liquid hardener so that the filler material                  retains its macrostructure; pouring into a mould; and press                  forming followed by removal and thermal hardening.</p>	<p>EMBODIMENTS                  The stone-forming component consists of: (1) a fine                  oxide mixture of amorphous SiO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub>; and/or                  (2) a glass-like, amorphous electrofilter ash; and/or                  (3) ground calcined bauxite; and/or                  (4) electrofilter ash from lignite coal fire power stations;                  and/or                  (5) undissolved, amorphous SiO<sub>2</sub>, esp. from an amorphous,                  dispersed powder, dehydrated or hydrated silicic acid;                  and/or                  (6) meta kaolin.                  The hardener is an alkali silicate solution with 1.2-3 mol                  SiO<sub>2</sub> per mol K<sub>2</sub>O and/or Na<sub>2</sub>O and a density of 1.4-1.7                  kg/dm<sup>3</sup>.</p>

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A surfactant and a turbidity agent may also be added to the mixture. The latter is pref. a vegetable ash such as rice shell ash. The filler material is pref. expanded vermiculite and/or perlite.

The mixture is pressed in a mould to reduce the volume to 20-80, pref. 30-50% of the starting volume using a pressure of 1-4 bar.

The mould is preheated to 40-250, pref. 100-170°C and after pressing is removed from the mould within 3 min. It is then hardened at 40-300, pref. 100-200°C.  
(19pp1678KGDwgNo0/1).

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